

WHAT IS CLAIMED IS:

1. For use with a condenser unit of an air conditioner, a
2 pre-cooling system, comprising:

3 a housing coupleable to a top of a condenser of an air
4 conditioner, said condenser having a substantially-vertical
5 exhaust;

6 a valve mounted in said housing and coupleable to a water
7 source, said valve capable of operating independently of electrical
8 power; and

9 a vane coupled to said valve and positionable in said
10 substantially-vertical exhaust, said vane having an
11 aerodynamically-shaped cross section useable to operate said valve.

2. The pre-cooling system as recited in Claim 1 wherein said
2 aerodynamically-shaped cross section has a leading edge and a
3 trailing edge, and wherein said leading edge is substantially
4 thicker than said trailing edge.

3. The pre-cooling system as recited in Claim 2 wherein said
2 aerodynamically-shaped cross section has an uppersurface and an
3 undersurface and wherein said uppersurface is longer than said
4 undersurface.

4. The pre-cooling system as recited in Claim 1 wherein said
2 vane has a concave undersurface.

5. The pre-cooling system as recited in Claim 1 further
2 comprising a water supply tube coupled to said valve and coupleable
3 to said water source.

6. The pre-cooling system as recited in Claim 1 further
2 comprising a spray nozzle in fluid communication with said valve.

7. The pre-cooling system as recited in Claim 1 further
2 comprising spray tubing interposed said valve and said spray
3 nozzle.

8. The pre-cooling system as recited in Claim 1 further
2 comprising a filter coupled to said valve and coupleable to said
3 water source.

9. The pre-cooling system as recited in Claim 8 wherein said
2 filter comprises hexametaphosphate.

10. A method of manufacturing a pre-cooling system for use
2 with a condenser unit of an air conditioner, said method
3 comprising:

4 providing a housing coupleable to a top of a condenser of an
5 air conditioner, said condenser having a substantially-vertical
6 exhaust;

7 mounting a valve in said housing, said valve coupleable to a
8 water source and capable of operating independently of electrical
9 power; and

10 coupling a vane to said valve, said vane having an
11 aerodynamically-shaped cross section and positionable in said
12 substantially-vertical exhaust, said aerodynamically-shaped cross
13 section useable to operate said valve.

11. The method as recited in Claim 10 wherein coupling a vane
2 includes coupling a vane wherein said aerodynamically-shaped cross
3 section has a leading edge and a trailing edge, and wherein said
4 leading edge is substantially thicker than said trailing edge.

12. The method as recited in Claim 11 wherein coupling a vane
2 includes coupling a vane wherein a straight line drawn between said
3 leading edge and said trailing edge defines a chord of said
4 aerodynamically-shaped cross section, and wherein said chord and a

5 direction of said substantially-vertical exhaust define an angle of
6 attack of said vane.

13. The method as recited in Claim 10 wherein coupling a vane
2 includes coupling a vane having a concave undersurface.

14. The method as recited in Claim 10 further comprising
2 coupling a water supply tube to said valve, said water supply tube
3 coupleable to said water source.

15. The method as recited in Claim 10 further comprising
2 coupling a spray nozzle in fluid communication with said valve.

16. The method as recited in Claim 10 further comprising
2 interposing spray tubing between said valve and said spray nozzle.

17. The method as recited in Claim 10 further comprising
2 coupling a filter to said valve, said filter coupleable to said
3 water source.

18. The method as recited in Claim 17 wherein interposing a
2 filter includes interposing a filter comprising hexametaphosphate.